Syllabus: MAT 187 Precalculus

Course Information	
Course Prefix/Number: MAT 187 Semester: Fall 2020 Class Days/ Times: ONLINE	Credit Hours: 5 Course Title: Precalculus

Instructor Information	
Name: Ms. Harison V. Smith	Phone: (520) 383-8401 (Main Campus) Email: hsmith@tocc.edu Office hours: Monday-Friday 12-2pm

Course Description
College-level algebra and trigonometry. Includes equations, algebraic and transcendental functions, inequalities, systems of equations, conic sections, sequences and series, trigonometric functions, polar form, calculator use, and partial fractions. Also includes intensive preparation for analytic geometry and calculus.

Course Objectives

During this course students will
1. Define and determine inverse functions verbally, algebraically, numerically, and graphically.
2. Perform transformations (shifts, compressions/stretches, and reflections) of toolkit functions given in algebraic, numeric, and graphical form.
3. Simplify and evaluate combined functions and composite functions
4. Determine domain and range of toolkit functions and use these to determine appropriate graphing window size
5. Determine if a function is even, odd, or neither
6. Calculate the distance and midpoint between two points.
7. Use the equation of a circle to produce a graph and find the equation of a circle from a graph.
8. Graph and model linear functions

9. Analyze, solve, and estimate solutions to polynomial and rational equations
10. Solve polynomial and rational inequalities
11. Determine domain and range of polynomial and rational functions and use these to determine appropriate graphing window size.
12. Determine the properties of polynomial and rational functions such as degree, maximum number of zeros, maximum number of turns, multiplicity of zeros, vertical asymptotes, horizontal asymptotes, and long-run behavior.
13. Graph polynomial and rational functions
14. Graph polynomial and rational functions on a calculator, determine appropriate graphing windows, and use the graphs to estimate extrema.
15. Solve systems of equations using an appropriate method including graphing, matrices, substitution and elimination.

Texts and Materials: openstax (https://openstax.org/details/precalculus)
Textbook will be provided on Canvas. No hard copy will be available.

Evaluation and Grading & Assignments:
Your grades will be based on the following components
Homework -- 300 points
Test -- 400 points
Final Exam -- 100 points

TOTAL Points -- 800 points

Grading Scales:
A: 800 - 720 points B: 719 - 640 points C: 639 - 560 points D: 549 - 480 points
F: Less than 480 points

Homework Policy:
Homework will be posted regularly on Canvas. Please make sure you check your Canvas daily for any assigned work. You may work with your classmates if needed; however, keep in mind that your solutions must be your own.

Tests:
There will be four regular tests, tentatively scheduled for
● Wednesday, September 16th, 2020
● Wednesday, October 7th, 2020

- Monday, November 2nd, 2020
- Tuesday, November 24th, 2020

Each test will be worth 100 points. Note: All tests will be taken on Canvas.

Final Exam:
Your final exam is tentatively scheduled on Tuesday, December 9th, 2020. It will be taken on Canvas.

Late Work/ Make-up Work:
There will be no make-up work for this class, but late work will be accepted with a 10% penalty for each missing day. Please note that extenuating circumstances will be given consideration without penalty. In this case, students must notify the instructor immediately.

Academic Integrity:
[a] Students should not get any types of assistance when taking a test online. This can include people or any other types of devices.
[b] Students should be courteous and respectful of others. Please use appropriate language when communicating with your teacher and fellow classmates.
[c] Plagiarizing and cheating will not be tolerated.

Tentative Course Schedule

Date	Homework due dates/ Test dates
Aug 24	Course syllabus & Class Overview
Aug 27	1.1
Aug 31	1.2
Sep 2	1.3
Sep 4	1.4
Sep 7	Labor Day - No school
Sep 8	1.5
Sep 10	1.6
Sep 14	1.7
Sep 16	**Chapter 1- Test**
Sep 18	2.1
Sep 22	2.2

Sep 24	2.3
Sep 25	O'odham Tas - No School
Sep 28-Oct 2	Fall Break
Oct 5	2.4
Oct 7	**Chapter 2 - Test**
Oct 9	3.1
Oct 13	3.2
Oct 15	3.3
Oct 19	3.4
Oct 21	3.5
Oct 23	3.6
Oct 27	3.7
Oct 29	3.8
Nov 2	**Chapter 3- Test**
Nov 4	4.1
Nov 6	4.2
Nov 10	4.3
Nov 11	Veteran's day - No school
Nov 12	4.4
Nov 16	4.5
Nov 18	4.6
Nov 20	4.7
Nov 24	**Chapter 4 - Test**
Nov 26-Nov27	Holiday
Nov 30	9.1
Dec 2	9.2
Dec 9	Final Exam
Dec 11	Grades due

DISCLAIMER: *This syllabus is designed to evolve and change throughout the semester based on class progress and interests. You will be notified of any changes as they occur.*